1 GENERAL SCOPE OF WORK

1.1 General

Design-Build Contractor shall perform the Work in accordance with the applicable requirements in the PPA Documents, including Project Standards, this Section 1 and its Attachment 1-1 (Unique Special Provisions: General Scope of Work); Governmental Approvals; and applicable laws.

1.2 Project Identification

Contract No.: R-37450
Project No.: 1172430
Roadway Des. No.: 1172430: I-65 Added Travel Lanes from US 231 to US 30
1400349: I-65 Added Travel Lanes from SR 2 to US 231
1006741: Pipe Liner 2.64 miles N of SR 10
Structure Des. No.: See table below. Specific Work is described in Section 13 (Structures).
Route No.: Interstate 65
Counties: Lake and Newton
District: LaPorte
Federal Oversight: Yes
Segment Limits: The Project limits are generally as described below.

Bridges in the Project limits include the following:

Bridge No.	Des. No.	Existing Structure Number	Proposed Structure Number	Description
1	1601115	I65-259-08308	I65-259-08308 A	93rd Avenue over I-65
2	1296986	I65-258-04902	NO WORK	101st Avenue over I-65 (Separate LPA Project)
3	1600332	I65-257-04901 CNBL	I65-257-04901 DNBL	I-65 NB over Beaver Dam Ditch
4	1600331	I65-257-04901 JCSBL	I65-257-04901 JDSBL	I-65 SB over Beaver Dam Ditch
5	1600329	I65-257-04900 ANBL	I65-257-04900 BNBL	I-65 NB over 109th Avenue
6	1600330	I65-257-04900 ASBL	I65-257-04900 BSBL	I-65 SB over 109th Avenue
7	1601116	I65-256-04899 A	I65-256-04899 B	113th Avenue over I-65
8	1600327	I65-255-02320 JBNB	I65-255-02320 JCNB	I-65 NB over US 231
9	1600328	I65-255-02320 BSBL	I65-255-02320 CSBL	I-65 SB over US 231
10	1601117	I65-254-04898 A	I65-254-04898 B	137th Avenue over I-65
11	1382203	I65-253-05119 BNBL	I65-253-05119 CNBL	I-65 NB over Wirtz Ditch
12	1382204	I65-253-05119 BSBL	I65-253-05119 CSBL	I-65 SB over Wirtz Ditch
13	1298545	I65-252-04897 A	I65-252-04897 B	153rd Avenue over I-65
14	1382207	I65-249-04896 BNBL	I65-249-04896 CNBL	I-65 NB over SR 2
15	1382208	I65-249-04896 BSBL	I65-249-04896 CSBL	I-65 SB over SR 2
16	0101469	I65-244-04891 CNBL	I-65-234-09807 NBL	I-65 NB over Kankakee River

Bridge No.	Des. No.	Existing Structure Number	Proposed Structure Number	Description
17	0200140	I65-244-04891 CSBL	I-65-234-09807 SBL	I-65 SB over Kankakee River

1.2.1 Segment A - Added Travel Lanes on I-65 from US 231 to US 30

1. This segment begins at the US 231 interchange with I-65 at approximately RP 247+50 and ends approximately 0.80 miles south of the US 30 bridge over I-65, approximately RP 251+108, for a segment length of approximately 4.6 miles, in Lake County, Indiana. The segment scope includes adding a new outside shoulder in each direction and converting the existing outside shoulder to a third travel lane in each direction.
2. The segment also includes Work on bridges 1, 3, 4, 5, 6, 7, 8, and 9 as described in Section 13 (Structures).
3. The ramps at the existing 109th Avenue interchange shall be revised as necessary to accept the new third lanes and to match proposed geometry and profile. The new third lanes shall be continuous through the interchange.
4. The segment also includes an ITS per Section 16 (Intelligent Transportation System).
5. The segment also includes the replacement or lining of culverts between SR 2 and US 30 per Section 9 (Drainage).

1.2.1.1 Pipe Liner 2.64 miles N of SR 10

Lining structure number 65-56-232.20, an existing 84-by-54-inch pipe arch, with a 79-by-49-inch HDPE liner at 2.64 miles north of SR 10 is included in segment A.

1.2.2 Segment B – Reconstruction of the I-65 NB and SB Bridges Over Kankakee River and Associated Work

This segment includes Work on bridges 16 and 17, as described in Section 13 (Structures). The bridges shall be reconstructed to accommodate travel lanes and full shoulders as described in Section 7 and Section 13. The segment scope shall include the addition of a third lane in the median and inside shoulder in each direction and associated Work. Guardrail shall be replaced within the range of concrete pavement. Adjacent cable barrier shall be modified accordingly.

1.2.3 Segment C1 – I-65 Mainline and Overhead Bridges from SR 2 to US 231

This segment includes Work on bridges 10, 11, 12, 13, 14, 15 as described in Section 13 (Structures).

1.2.4 Segment C2 - Added Travel Lanes on I-65 from SR 2 to US 231

This segment begins just south of the SR 2 interchange with I-65 at approximately RP 239+00 and ends at the US 231 interchange with I-65, approximately RP 247+50 for a segment length of approximately 8.5 miles, in Lake County, Indiana. The segment scope shall include the addition of a third lane in the median and inside and outside shoulder in each direction and associated Work.

1.3 Project Management

1.3.1 Key Personnel

Design-Build Contractor shall provide Key Personnel in accordance with Section 7.3 of the PPA. The following describes the roles and responsibilities of the Key Personnel:

1. Project Manager: Design-Build Contractor's designated individual as its single point of contact for purposes of overall administration of the project, and who is authorized to act on its behalf with respect to contractual matters and for resolving any and all issues that may arise between Design-Build Contractor and INDOT during progress of the Work.

2. Construction Manager: Design-Build Contractor's designated individual who is responsible for oversight and management of all construction and other field activities related to the project. The Construction Manager shall be different from and report to Design-Build Contractor's Project Manager.

3. Construction Superintendent: Design-Build Contractor's designated individual who is responsible for supervision of all field activities. The Construction Superintendent may be the Construction Manager or an individual who reports directly to the Construction Manager. If the Construction Superintendent is also the Construction Manager, then the Construction Superintendent may not serve in any other additional role. If the Construction Superintendent does not also serve as the Construction Manager, then the Construction Superintendent may fill one other Key Personnel Role if qualified.

4. Lead Engineer: The Designer's Engineer who will manage all Work performed by Design-Build Contractor's Designer including management of any Design Work support during construction, such as design changes and the completion of Record Drawings. The Lead Engineer is responsible for releasing Design Documents for construction, reviewing all construction documents, and certifying that all Released for Construction Documents, conform to the requirements of the Technical Provisions and the PPA. The Lead Engineer must be a Registered Professional Engineer in Indiana.

5. Erosion and Sediment Control Manager: Design-Build Contractor's designated individual who is responsible for the installation, inspection, maintenance and removal of all required storm water management measures and implementation of the Contractor's Storm Water Quality Control Plan. The SWQM shall meet the requirements of 205.03(b)1, and hold a current certification as a CESSWI, or a CESSWI In-Training, or a CISEC, or a CISEC In-Training, or a CPESC, or a CPESC In-Training, or an approved equivalent. For additional requirements, refer to the Department Standard Specifications and Recurring Special Provision 205-R-636.

6. Design Quality Manager: The Designer's Engineer who is responsible for Design QA/QC for all Design Work that is performed for the project, including any design changes during construction and the production of Record Drawings. The Design Quality Manager shall include a certification with each design Submittal that all necessary Design QC checks have been completed and that any design changes resulting from such checks are incorporated in the Submittal.

7. Maintenance of Traffic (MOT) Manager: See Section 11.3.6 for roles and responsibilities. The MOT Manager shall be certified by the American Traffic Safety Service Association, ATSSA, or approved equal certifying organization in accordance with Standard

Specification 801.03. The MOT Manager shall be different from and report to the Construction Superintendent.

8. Certified INDOT Utility Coordinator: Design-Build Contractor's designated individual who is certified through INDOT's Utility Coordinator Certification Training, and who is responsible for completing the utility coordination process as defined in the Indiana Design Manual Chapter 104, 105 IAC 13, and the INDOT Utility Accommodation Policy.

9. Kankakee River Bridge Design Lead Engineer: The individual who will manage all Work related to structural elements related to the Kankakee River Bridge. This individual will manage the Work performed by Design-Build Contractor's Designer, including any Design Work support for said bridge during construction, such as design changes and the completion of Record Drawings. This engineer is responsible for releasing Design Documents for construction, reviewing all Construction Documents and for certifying that all Released-for-Construction Documents, including both Design Documents and Construction Documents, conform to the requirements of the Technical Provisions and the PPA.

1.3.2 Project Administration

1.3.2.1 Project Baseline Schedule

Design-Build Contractor shall provide the Project Baseline Schedule and the Preliminary Project Baseline Schedule which shall conform to the "Baseline CPM Schedule" in Recurring Special Provision 108-C-215. Design-Build Contractor shall submit the Project Baseline Schedule for approval by INDOT in its sole discretion. INDOT will review the Project Baseline Schedule in accordance with Recurring Special Provision 108-C-215.

Each activity on the Project Baseline Schedule shall be assigned a cost by Design-Build Contractor for the purposes of calculating and tracking earned value. The cost loading of the schedule will be reviewed by INDOT as described in preceding paragraph.

1.3.2.2 Project Status Schedule

Design-Build Contractor shall submit to INDOT Project Status Schedule updates to reflect the current status of the Project including recovery schedules, schedule revisions due to Change Requests, and approved Change Orders.

The Project Status Schedule shall conform to the "Monthly Update CPM Schedule" in Recurring Special Provision 108-C-215. The Project Status Schedule shall be submitted to INDOT in accordance with Recurring Special Provision 108-C-215 for approval. If the Project Status Schedule is not submitted by the required date INDOT may withhold or adjust Progress Payments.

1.3.2.3 As-Built Schedule

Design-Build Contractor shall submit an "as-built schedule" in conformance with the "Final CPM Schedule" in Recurring Special Provision 108-C-215. The "as-built schedule" shall be submitted to INDOT in accordance with Recurring Special Provision 108-C-215 for approval.

1.3.2.4 Revisions

If it becomes necessary to add, combine, eliminate, or modify schedule Activities to reflect modifications to the Work, such changes shall be made through a Change Order that has been issued by INDOT, and therefore reflected in the Project Schedule. Revisions to the Project Schedule and consequent realignment of funds between payment activities may be requested by Design-Build Contractor in accordance with, and subject to, Section 13 of the PPA.

1.3.2.5 Time Impact Analysis

1. As part of a Change Request as set forth in Section13 of the PPA Design-Build Contractor shall submit to INDOT a written time impact analysis illustrating the influence of each claimed delay. Each time impact analysis shall include a fragmentary network demonstrating how Design-Build Contractor proposes to incorporate the change, delay, or Design-Build Contractor request into the current Project Status Schedule. The time impact analysis shall demonstrate the time impact to each and every affected schedule Activity in the most recent Project Status Schedule at the time of the occurrence.
2. The time impact analysis Submittal shall include the details of the change, including added, changed or deleted data for schedule Activities and logic. If the current Project Status Schedule is revised subsequent to submittal of a time impact analysis but prior to its approval, Design-Build Contractor shall promptly indicate in writing to INDOT the need for any modification to its time impact analysis.
3. Design-Build Contractor shall submit one printed Gantt chart including all schedule Activities affected by the time impact analysis, grouped and sorted by WBS and compared to the current Project Baseline Schedule. In addition, Design-Build Contractor shall provide one electronic backup of the Project Schedule with the time impact analysis and a comprehensive narrative for each Change Request. Design-Build Contractor shall incorporate the results of the Change Request from INDOT into the Project Status Schedule for the next Progress Report.

1.3.2.6 Recovery Schedule

If the Work is delayed on any Controlling Work Item for a period which exceeds the greater of either thirty days in the aggregate or that number of days in the aggregate equal to five percent of the days remaining until Substantial Completion, the next Project Status Schedule shall include a Recovery Schedule demonstrating the proposed plan to regain lost Project Schedule progress and to achieve Substantial Completion by the specified date.

1.3.3 Project Management Plan

Design-Build Contractor shall prepare a Project Management Plan (PMP), which is an umbrella document that describes Design-Build Contractor's managerial approach, strategy, and quality procedures to design and build the Project and achieve all requirements of the PPA Documents.

INDOT will audit and monitor the activities described in the PMP to assess Design-Build Contractor performance. All commitments and requirements contained in the PMP shall be verifiable.

The PMP shall be submitted for INDOT approval in accordance with Section 2.1.1 of the PPA. The general outline and minimum content of the PMP shall be as follows:

1.3.3.1 Project Administration

1. Organizational diagram
2. Personnel names and contact details, titles, and job roles
3. Design-Build Contractor's Contracting Plan
4. Project Baseline Schedule
5. Quality Control procedures to establish and encourage continuous improvement
6. Audit
7. Procedures to facilitate review and audit by INDOT
8. Auditing and management review of Design-Build Contractor's own activities under the PMP
9. PMP Update - Procedures for preparation of amendments and submission of amendments to any part of the PMP
10. Document Management - The manner in which records will be maintained in compliance with the Technical Provisions, including any specific systems Design-Build Contractor will use.

1.3.3.2 Quality Management Plan

1. Organizational structure covering the activities to be performed in accordance with the PPA Documents
2. Personnel - Resource plan for Design-Build Contractor and its Subcontractors
3. Arrangements for coordinating and managing staff interaction with INDOT and its consultants, including Key Personnel and description of approach to coordinating Work of off-site personnel
4. Names and contact details, titles, job roles and specific experience required for the Key Personnel and for other principal personnel during design
5. Names and contact details, titles, job roles of principal personnel for Design-Build Contractors and any third party with which Design-Build Contractor will coordinate activities
6. Design QA/QC Plan
    a. Arrangements for coordinating and managing staff interaction with INDOT and its consultants, including Key Personnel and description of approach to coordinating Work of off-site personnel
    b. Responsibility of Design-Build Contractor and Affiliates, including constructability reviews
    c. Steps taken to ensure Design-Build Contractor and Suppliers meet the obligations imposed by their respective Contracts
    d. Interfaces between Design-Build Contractor, Subcontractors, and independent certifiers during design, including interfaces between the structural design auditor, the safety auditor, and quality reviewers
    e. Coordination with Utility Owners

f. Procedures describing how the principal activities will be performed during the design stage: to include geotechnical site investigation, surveys and mapping, environmental management, safety audit, structural audit, and checking

g. QA/QC procedures, including a resource table for monitoring and auditing all design services, design review and certification, verification of Plans and Working Drawings; NDCs, FDCs; and Witness Points and Hold Points in Section 2 (Quality Management).

h. Procedures to establish Design-Build Contractor's Hold Points in design process where checking and review will take place

i. Procedures to ensure accuracy, completion, and quality in Submittals to INDOT and Governmental Entities

j. Procedures to establish and encourage continuous improvement, including corrective and preventive action

7. Construction Quality Management Plan

Complete procedures for preparing for and complying with Construction Hold Points in Section 2 (Quality Management).

1.3.3.3 Environmental Management

1. Organization - Design-Build Contractor's main contractual arrangements
2. Organizational structure covering the activities to be performed in accordance with the PPA Documents
3. Environmental Contact Tree
4. Personnel - Resource plan for Design-Build Contractor and its Subcontractors
   a. Arrangements for coordinating and managing staff interaction with INDOT and its consultants, including Key Personnel and description of approach to coordinating Work of off-site personnel
   b. Names and contact details, titles, job roles and specific experience required for Key Personnel and for other environmental personnel
5. Subcontractors - Overall control procedures for subcontractors, including consultants and subconsultants
6. Environmental Compliance and Mitigation Plan
7. Spill Prevention Plan

1.3.3.4 Safety Plan

1. Organization – Personnel, policies, plans, training programs, Work Site controls, and Incident management and response plans to ensure the health and safety of personnel involved in the Project and the general public affected by the Project
2. Procedures for immediately notifying INDOT of all incidents arising out of or in connection with the performance of the Work

1.3.3.5 Communications Plan

1. The manner in which Design-Build Contractor's organization will respond to unexpected requests for information, communicate changes or revisions to necessary Design-Build Contractor personnel, and notify affected stakeholders before and after changes are made
2. Processes and procedures for communication of Project information between Design-Build Contractor's organization, INDOT, the Department, permitting agencies, utilities, other third parties and the public.

1.3.3.6 Updates to the PMP

Design-Build Contractor shall provide a revised PMP to INDOT for approval in its sole discretion.

Propose updates to the PMP and, as applicable, affected components in the event of the following:

- The occurrence of any changes to Key Personnel, Quality Plan, Safety Plan, Project Schedule, project administration policies and procedures
- The occurrence of other changes necessitating revision to the PMP
- As otherwise directed by INDOT

1.3.4 Document Management

In the provision of a document management system, Design-Build Contractor shall:

1. Use data protocols, standards, and procedures compatible with those employed by INDOT and implement any new operating practices required as a result of INDOT's amendments to any such systems, standards, and procedures.
2. Provide a secure location for any interface as may be provided by INDOT, such that only authorized users have access and that it is protected from loss, theft, damage, unauthorized or malicious use.
3. Employ appropriate standards and procedures, and train Design-Build Contractor personnel to operate any INDOT data management system which INDOT may require in connection with the Project.
4. Design-Build Contractor shall train INDOT personnel to operate any Design-Build Contractor data management system approved by INDOT for Design-Build Contractor use in connection with the Project.
5. Provide a mechanism for the electronic transfer of meta-data along with the associated portable document format (PDF) images for uploading into an Electronic Document Management System (EDMS).
6. Provide INDOT with procedures and software for accessing all Project-related documents as a component of Design-Build Contractor's obligations under Section 21 of the PPA.

All Project-related documents shall be provided to INDOT in a searchable electronic format and legible.

In the Project Management Plan, Design-Build Contractor shall provide a detailed description of:

1. Methods by which all Project-related documents will be uniquely coded, including the use of drawing numbers (Dwg. Nos.) for Plan sheets, and retrievable in a user-friendly format.
2. The routing, filing, control, and retrieval methods for all documents.
3. Methods to facilitate sharing of data, including procedures and software for accessing all Project-related documents.
4. All documents and data elements that will support records. These data elements shall include, as a minimum: document class, document type/subtype, document name, form number, INDOT records series item number, INDOT agency item number, INDOT records series title, INDOT retention period, turnover media, turnover frequency, submission type, special requirements, and remarks.

To allow for disaster recovery, Design-Build Contractor shall back-up and store all Project-related documents in a secure off-Site area.

1.3.5 Facilities

1.3.5.1 Field Office

Design-Build Contractor shall provide for INDOT's use, one modified Type C Field Office meeting the following requirements immediately adjacent to Design-Build Contractor's Field Offices and within one mile of the project Site. The modified Type C Field Office shall meet all of the requirements of Standard Specification 628.02, except:

- The minimum size shall be 2,500 sq ft, with a minimum width of 20 ft.
- The Field Office shall have a room suitable for conducting meetings with up to 20 participants.
- All of the Field Office equipment and supplies listed in the Standard Specifications for a Type C Field Office are required, except the requirements for the following items shall be modified as follows:
  - Calculators (4)
  - Chairs (20)
  - Drafting stools (2)
  - Drafting tables (2)
  - File cabinet drawers (20)
  - Folding office tables (8)
  - Office desks and office chairs (8)
  - Shelving (48 linear feet)
  - Wastepaper baskets (8)
  - Dry erase board 3 ft x 5 ft, with eraser (1)

- Multiple colored dry erase markers (required for the duration of the contract)

1.3.5.2 Field Laboratory

Design-Build Contractor shall provide for INDOT's use, one Type C field laboratory as specified in Department Standard Specifications 628.02(f). In addition to the provisions of Section 628.02(f) Design-Build Contractor shall provide hot and cold running water (potable), and a portable cook stove for drying samples and with propane in containers of suitable size to be transported to the jobsite.

Design-Build Contractor does not need to include telephone lines or telephones in the field laboratory. Design-Build Contractor shall provide for INDOT's use in accordance with applicable ITMs and AASHTO T 23, concrete test beam forms and lime bath cure tanks required for INDOT quality assurance testing of QA/QC PCCP. The quantity of equipment shall be sufficient to meet the production schedule of Design-Build Contractor.

1.3.5.3 Cellular Telephones

Design-Build Contractor shall provide eight (8) Cellular phones for INDOT field staff meeting the requirements of Standard Specifications 628.04, Type A. A minimum of 600 anytime minutes per month per cellular phone shall be provided.

1.3.6 INDOT Contacts

Design-Build Project Manager:

Indiana Department of Transportation LaPorte District
315 East Boyd Blvd.
LaPorte, Indiana 46350
Attention: Michael Ready
Telephone: (219) 325-7535
E-mail: MReady@indot.in.gov

Existing Plans and As-Built Plans:

Mr. David Schilling
INDOT Contract and Construction Div. IGCN, Room N725
100 N. Senate Avenue Indianapolis, IN 46204
Phone: (317) 233-8805
E-mail: dschilling@indot.in.gov

1.4 Deliverables

Deliverables, a non-exhaustive list of which is set forth in the table below, shall be submitted in electronic format in accordance with the schedule set forth below. Acceptable electronic formats include PDF and current versions of Microsoft Word and Microsoft Excel, unless otherwise indicated.

Deliverable	**Submittal Schedule**	**TP Section**
Project Baseline Schedule	No later than 90 Days following NTP	1.3.2.1

Deliverable	Submittal Schedule	TP Section
Project Status Schedule	Initial and periodic Submittal schedule per RSP 108-C-215	1.3.2.2
As-Built Schedule	Initial and periodic Submittal schedule per RSP 108-C-215	1.3.2.3
Revisions	Included with next Project Status Schedule following Occurrence	1.3.2.4
Time Impact Analysis	Included with next Project Status Schedule following Occurrence	1.3.2.5
Recovery Schedule	Included with next Project Status Schedule following Occurrence	1.3.2.6
Project Management Plan	No later than 30 Days following NTP	1.3.3
Updates to the PMP	No later than 14 days after the occurrence of the change or direction triggering the need for the revisions to the PMP.	1.3.3.6
Field Offices	No later than 90 Days following NTP	1.3.5.1
Field Laboratory	No later than 30 Days prior to the start of embankment, structural concrete or pavement construction activities.	1.3.5.2
Cellular Telephones	No later than 90 Days following NTP	1.3.5.3